Panasonic® Color Television/DVD Combo Operating Instructions

CT-20DC50 CT-27DC50 CT-27DC50U



Information For Your Safety

CAUTION:

DVD PLAYER IS A CLASS I LASER PRODUCT. HOWEVER THIS DVD PLAYER USES A VISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF VIEWED DIRECTLY. BE SURE TO OPERATE THE PLAYER CORRECTLY AS INSTRUCTED.

WHEN THIS UNIT IS PLUGGED INTO THE WALL OUTLET, DO NOT PLACE YOUR EYES CLOSE TO THE OPENING OF THE DISC TRAY AND OTHER OPENINGS TO LOOK INTO THE INSIDE OF THIS UNIT.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.



(LABEL INSIDE OF TV)

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



Information for your Safety (cont.)

FCC NOTE:

This unit has been tested and found to comply with limits for a class B digital device unit, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded cables when connecting to other devices. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate equipment.

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IMPORTANT INFORMATION REGARDING USE OF VIDEO GAMES, COMPUTERS, DSS OR OTHER FIXED IMAGE DISPLAYS.

The extended use of fixed image program material can cause a permanent "shadow image" on the picture tube. This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible picture tube deterioration can be limited by observing the following steps:

- A. Reduce the brightness/contrast setting to a minimum viewing level.
- B. Do not display the fixed image for extended periods of time.
- C. Turn the power off when not in actual use.
- **Note:** The marking or retained image on the picture tube resulting from fixed image use is not an operating defect and as such is not covered by Warranty. This product is not designed to display fixed image patterns for extended periods of time.

Read these instructions completely before operating TV. Contents are subject to change without notice or obligation.

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Congratulations

Your new TV/DVD combo features a solid state chassis that is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

Customer Record

The model and serial number of this product are located on the back of the TV. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss. Product registration is available to U.S. customers at **www.prodreg.com/panasonic**.

Model Number	
Serial	
Number	

Care and Cleaning

Screen (Turn TV Off)

- Use a mild soap solution or window cleaner with a soft clean cloth. DO NOT USE ABRASIVE CLEANERS.
- Avoid excessive moisture and wipe dry.

Note: Do not spray any type of cleaning fluid directly on the screen.

Cabinet and Remote Control

- Use a soft cloth dampened with water or a mild detergent solution. Do not use benzene, thinner, or other petroleum based cleaners.
- Avoid excessive moisture and wipe dry.

Power Source	
CT-27DC50 (2.0A) CT-27DC50U (2.0A) CT-20DC50 (1.5A)	120V AC; 60Hz
Channel Capability - 181	VHF-12; UHF-56; Cable-113
3 Video Input Jacks	1Vp-p, 75 Ohm, Phono Jack Type
6 Audio Input Jacks	500mV RMS 47K Ohm
To Audio AMP Jack	0-2.0V RMS 4.7K Ohm
S-VHS Input Jack	S-Video (Y-C) Connector
Digital Optical Output	Optical Connector
Operating Humidity Range	5 to 90% RH (no condensation)

Specifications

Specifications are subject to change without notice or obligation.

e used with an optional stand or entertainment center. Consult your is.

ight or bright lights, including reflections.

essive heat or moisture. Inadequate ventilation may cause internal

nay reduce remote control transmitting range.

ment, including motors, fans, or external speakers.

elevision receiver only with the cart, stand, tripod, by the manufacturer, or sold with the apparatus. When when moving the cart/apparatus combination to avoid order to avoid injury to children, never place your ece of furniture that is capable of being tilted by a child standing on it, or climbing on it.



cables should be used between components. For best results: hielded cables.

and output connectors that match your component connectors. ninimize interference.

ECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO AND FULLY INSERT. DO NOT USE A PLUG WITH A OUTLET UNLESS THE BLADE CAN BE FULLY ADE EXPOSURE. FOR SOME MODELS THAT ARE OF AN AC ADAPTOR CONNECTOR MAY



FROM BEING WALKED ON, ROLLED OVER, CRIMPED, BENT OR AT PLUGS, CONVENIENCE RECEPTACLES, AND THE POINT WHERE RATUS.

a cable or antenna connection is required.

by your local cable company.

r box may be required for proper reception. r local cable company for compatibility

ception of VHF/UHF channels, an external quired. For best reception an outdoor antenna ded.

e must be set to TV in the SETUP menu.

set at the factory. Antenna users must change n the Setup Menu. Incoming Cable from Cable Company



75 Ohm VHF/UHF on back of TV

Incoming Cable from Home Antenna



Remote Control Operation

Remote Control

POWER

Press to turn ON and OFF.

VOL

Press to adjust TV sound and navigate in menus.

TV/VIDEO Press to select TV, Video or DVD Mode.

MUTE

Press to mute sound. Press to access and cancel (CC) Closed Caption.

"0"~ "9"

Press numeric keypad to select any channel. Selects DVD functions in DVD mode.

SKIP/REW, PLAY, SKIP/FF, CANCEL/TV/VCR, STOP, STILL/PAUSE, REC, VCR/DBS CHANNEL SLOW/ SEARCH

Component function buttons.



EUR511503

*To prolong the life of the batteries, turn the light off and on pressing R-TUNE and RECALL buttons, simultaneously.

LIGHT *****

Press to light remote control buttons.

TV, DVD, CBL/DBS, VCR

Press to select remote operation.

СН

Press to select next channel and navigate in menus.

ACTION/ENTER

Press to access menus or enter selections

R-TUNE

Press to switch to previously viewed channel or video mode.

RECALL/DISPLAY

Press to display time, channel, sleep timer, and other options. Display onscreen menus in DVD mode

Quick Reference Functional Key Chart

Кеу	Operates	Function
POWER	All Components	Turns On and Off selected components
MUTE	TV	Mutes TV audio
TV/VIDEO	TV	Selects the input mode
ACTION	ти	Activates TV menus/Enter
\bigcirc	DVD	Activates DVD Action/Selection
ENTER	DBS	Activates DBS menus
	тν	Channel up/down, Menu navigation
	CABLE CH DBS	Channel up/down Channel up/down, Navigation up/down
	DVD	Navigation up/down
	VCR	Channel up/down
	All Components	Search code
	TV Cable VCR	TV Volume left/right, Menu navigation
	*DVD	Navigation left/right
TOP MENU MENU ANGLE 1 2 3 SUB TITLE AUDIO PLAY MODE	TV VCR CABLE	Selects channel
4 5 6 MARKER REPEAT MODE A-B REPEAT 7 8 9 NUM VSS BETURNISHO	All Components	Selects code
	DVD	<i>Note:</i> Refer to the DVD section in this manual for DVD buttons operation.

*Press TV mode button to adjust volume for DVD.

REMOTE CONTROL OPERATION Quick Reference Functional Key Chart cont.

Кеу	Operates	Function
RETURN≧10	DVD DBS	Return ≥10 Guide
NUM	DVD	Press to Access 0~9 Number buttons while in DVD mode
	DBS	Exit
R-TUNE	TV CABLE DBS	Previous channel
	TV Cable	Display Channel, time and audio On screen display
RECALL	VCR	On screen display
DISPLAY	DVD	Display
	DBS	Program Info
TV	тv	TV mode selection for remote control
CBL/DBS	CABLE DBS	DBS/Cable mode selection for remote control
VCR	VCR	VCR mode selection for remote control
DVD	DVD	Digital Videodisc mode selection for remote control
PLAY	VCR DVD	Play Play

Quick Reference Functional Key Chart (cont.)

Кеу	Operates	Function
SKIP/FF	VCR DVD	Fast forward Skip search fast forward
SKIP/REW	VCR DVD	Rewind Skip search rewind
STOP	VCR DVD	Stop Stop
REC	VCR	Record
CANCEL TV/VCR	VCR DVD	Select TV/VCR mode Cancel
STILL PAUSE	VCR DVD	Pause Still
SLOW SEARCH	VCR DBS DVD	Channel up/down Page Up/Down Channel up button (search forward)) Channel down button (search backward) After pressing PAUSE key, press ID button for Slow Forward and ID button for Slow Backward. You can press these buttons five (5) times to speed up the Slow Search in either direction.

Battery Installation

Use two AA batteries:

Remove battery cover by pushing in and up near arrow. Install batteries matching (+) and (-) polarity signs. Replace the battery cover.

Precautions

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.
- **Note:** Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control.

rogramming The Remote

The Universal Remote Control can be programmed to operate many manufacturers' components, using the component function buttons for CABLE, DBS, VCR, or DVD. Follow the procedures for programming your Remote Control with or without codes for the component. **Determine the manufacturer of the component and look in the table for the code.**

With A Code

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press the ACTION and POWER button, together, for at least 5 seconds.
- Press appropriate component button on the Remote Control (VCR, DBS/CBL, g
- Enter the 3-digit component code using the Remote Control numeric key 9 buttons).
- Press the Remote Control POWER button to test the component. If the successful, the component will turn on.

Helpful Hints: Unsuccessful Code

If the component does not operate with the Remote Control, repeat the procedure using another code. (Some brands have multiple code If an incorrect code is entered, or if the proc takes longer than 30 seconds, the progr will fail.

Without A Code

This procedure searches all codes and is called the "s

- Confirm that the external component is plu
- Turn the component off.
- Press the ACTION and POWER butter
- Press appropriate component butter
- Press the button to move f backward.
- Press the Remote Contro successful, the component

Note: Repeat the attempts

After the code

Component Codes

The Universal Remote Control is capable of operating many component brands after entering code. Some components may not operate because the codes are not available due to limited memory. The Universal Remote Control does not control all features in all models.

Brand	Code
Admiral	135
Aiwa	127, 132
Akai	129, 114, 115, 116
Audio Dynamic	139, 111
Bell & Howell	105, 113
Broksonic	120, 126
Canon	123, 125
CCE	143
Citizen	106
Craig	105, 129, 106
Curtis Mathes	145, 124, 127
Daewoo	143, 124, 175
DBX	139, 110, 111
Dimensia	145
Emerson	143, 126, 119, 103, 125, 120
Fisher	105, 108, 109, 107, 113
Funai	120, 126. 127. 134
GE	124, 133, 145
Go Video	137, 151, 163
Goldstar	106
Gradiente	134, 156, 168, 170
Hitachi	100, 123, 127, 145, 168
Instant Replay	123, 124
Jensen	139
JVC	110, 111, 134, 139
Kenwood	106, 110, 111, 134, 139
LG	106
LXI	100, 105, 106, 107, 108, 109, 127
Magnavox	123, 124, 131
Marantz	110, 111, 139
Marta	106
Memorex	109, 124
MGA	138, 140, 141, 147, 148, 161
Minolta	100, 145
Mitsubishi	138, 140, 141, 147, 148, 161
Multitech	137
NEC	110, 111, 134, 139
Olympic	123, 124
Ontimus	106 121 128 135

Codes for VCR

Brand	Code
Orion	120, 126
Panasonic	121, 122, 123, 124
Penney	100, 105, 110, 111, 124, 139, 145,
Pentax	100, 111, 145
Philco	120, 123, 124, 126, 127, 143
Philips	123, 124, 131, 173
Pioneer	123
Proscan	100, 101, 102, 123, 124, 131, 133, 145, 146, 174
Quasar	121, 122, 123, 124
Radio Shack	105, 109, 124, 127, 133, 136, 140
RCA	100, 101, 102,123, 124, 131, 133, 145, 146, 170, 172, 174, 176
Realistic	105, 109, 124, 127, 136, 140
Samsung	102, 104, 133, 137
Sansui	120, 126, 139, 152
Sanyo	105, 109, 113
Scott	102, 104, 109, 120, 126, 138, 140, 147, 148
Sears	100, 105, 106, 107, 108
Sharp	135, 136, 137
Shintom	117
Signature 2000	127, 135
Singer	117
Sony	128, 129, 130
SV2000	127
Sylvania	1123, 124, 127, 131, 178
Symphonic	127, 168, 177
Tashiro	106
Tatung	110, 111, 139
Теас	110, 111, 127, 139
Technics	1121, 122, 123, 124
Teknika	124, 127
Toshiba	101, 146, 166
Vector Research	111
Wards	106, 109, 135, 136
Yamaha	105, 110, 111, 139
Zenith	106, 169

Brand	Code
ABC	224
Archer	225, 232
Cableview	205, 232
Citizen	205, 222
Curtis	212, 213
Diamond	224, 225, 232
Eagle	229
Eastern	234
GCbrand	205, 232
Gemini	222
General Instrument/ Jerrold	211, 219, 220, 221, 222, 224, 225, 226, 227
Hamlin	212, 218, 240, 241, 242, 245
Hitachi	203, 224
Macom	203, 204, 205
Memorex	230
Movietime	205, 232
Oak	202, 237, 239
Panasonic	209, 210, 214
Philips	206, 207, 228, 229, 230
Pioneer	201, 216
Pulsar	205, 232

Codes for Cable Box

Brand	Code
Puser	232
RCA	215
Realistic	232
Regal	212, 218, 240, 241, 242, 245, 249
Regency	234
Rembrandt	205, 232, 237
Samsung	205
Scientific Atlanta	211, 212, 213
Slmark	201, 205
Sprucer	205, 210
Stargate	205, 210
Telecaption	248
Teleview	201, 205
Texscan	244
Tocom	235, 236, 247
Unika	225, 232
Universal	222, 232
Videoway	206
Viewstar	229, 230
Zenith	200, 227
Zenith/.Drake Satellite	200

Codes for DBS

Brand	Code
Dish Network (Echostar)	105
Echostar	105
G. E.	106
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103

Brand	Code
Panasonic	104
Philips	101, 102
Primestar	108
RCA	106, 109, 110, 113
Sony	107
Toss-up	100
Uniden	101, 102



Dolby Digital Decoder Connection

When DVDs are recorded in Dolby* Digital or DTS, follow this diagram to connect the TV/DVD unit to a Dolby Digital decoder.

Note:

- Remove the dust protection cap from the optical digital audio output connection.
- For protecting against dust, reattach the dust protection cap when not using the connector.





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Main Menu



ACTION Button

Press the ACTION button to display the Main Menu and submenus. Press the ACTION button repeatedly to exit.

CH / VOL Buttons

Press the CH (channel) or VOL (volume) buttons to select an icon. Use the CH buttons to highlight the desired features. Use VOL buttons to select and adjust features.

Remote Action / Navigation Buttons



Front Control Panel Buttons



- (1)POWER - Press to turn ON or OFF.
- VOLUME Press to adjust sound and navigate in menus.
- CHANNEL Press to select next or previous channel and navigate in menus.
- ACTION Press to access menus.
- TV/VIDEO Press to select TV or Video modes.
- SKIP/SEARCH (Reverse) Press during play to return to previous chapter or track.
- PLAY Press to play disc.
- SKIP/SEARCH (Forward) Press during play to select next chapter or track.
- STOP Press during play to stop disc.
- (10) **PAUSE** - Press during play to pause disc.
- (11) **OPEN/CLOSE** - Press to open or close the disc tray.

Main Menu Feature Chart

Μενυ	DESCRIPTION
SET UP	SETUP
SET TIME	When entered, TIME will display on screen after pressing POWER button, RECALL button, or changing channels.
ANT	Choose CABLE or TV to match the signal at your antenna input.
AUTO PROG	Automatically program channels with a signal into memory.
MANUAL PROG	Manually add or delete channels from memory.
AUTO POWER ON	Select SET to power up the TV at the same time as the Cable Box or other components or select OFF.
CC MODE	Select C1 or C2 for Closed Captioning display. Select OFF to display closed captioning when MUTE button is pressed.
AUTO ASPECT	Select ON to automatically set aspect ratio 4:3 or 16:9. This feature works only in DVD mode.
LANGUAGES	Select English, Spanish, or French menu.
	AUDIO
AUDIO NORM	Reset BASS, TREBLE and BALANCE to factory default.
BASS	Increase or decrease the bass response.
TREBLE	Increase or decrease the treble response.
BALANCE	Emphasize the left/right speaker volume.
MODE	 Select the audio mode: STEREO - Two channel audio reception. SAP - (Second Audio Program) Tune to the alternate audio channel if available in your area (bilingual or descriptive audio). MONO - One channel audio. Use when stereo signal is weak.
AI SOUND	Automatically maintain constant volume between programs and commercials.
SURROUND	Enhances audio response when listening to stereo.
TV SPEAKERS	 Select TV SPEAKERS: ON - TV SPEAKERS operate normally. OFF&VAO (Variable Audio Output) - TV Speakers off — audio adjustable by TV. OFF&FAO (Fixed Audio Output) - TV SPEAKERS off — audio adjustable only by the external amplifier.

Main Menu Feature Chart (Cont.)

Menu	DESCRIPTION	
TIMER	TIMER	
SLEEP TIMER	Program TV to automatically turn off in 30, 60, or 90 minutes. Select NO to turn timer off.	
PROGRAM TIMER	Program TV to automatically turn on and off at selected time on a selected channel, daily or only one day.	
	DVD SETUP	
DVD SETUP	Accessed only in DVD Mode with Disc in STOP mode. Refer to the DVD section for information on DVD setup menus.	
PICTURE	PICTURE	
PICTURE NORM	Reset all picture adjustments to factory default settings.	
COLOR	Adjust desired color intensity.	
TINT	Adjust natural flesh tones.	
BRIGHTNESS	Adjust dark areas for crisp detail.	
PICTURE	Adjust white areas of picture.	
SHARPNESS	Adjust clarity of outline detail.	
	СН САР	
CHANNEL CAPTION	Provide labels for up to 30 stations using up to four characters for each station.	
	LOCK	
GAME GUARD	Program to prevent video games, cable box, and VCRs from being viewed. Note: For information about Motion Picture and TV Parental Guide ratings, refer to the V-Chip section in this manual.	

Special Features



In SETUP menu, select ENGLISH, ESPAÑOL, or FRANÇAIS to change the menu language.

SET-LIP	
SET TIME	: AM
ANT	CABLE
AUTO PROG	NO
MANUAL PROG	NO
AUTO POWER ON	OFF
CC MODE	OFF
AUTO ASPECT	ON
ENGLISH ESPAÑOL	FRANÇAIS

Timer

Sleep Timer

In TIMER menu, program to turn TV OFF in 30, 60, or 90 minutes. Select NO to turn off timer.

TIMER CONTROL	
SLEEP TIMER	NO
PROGRAM TIMER	
ON OFF CHANNEL SET	: : 3 TIME FIRST

Program Timer

In Timer menu, program TV to automatically turn on and off at selected time on a selected channel, daily or one day.

TIMER CONTROL	
SLEEP TIMER	NO
PROGRAM TIMER	
ON	:
OFF	:
CHANNEL	3
SET	TIME FIRST

Note: TIME must be entered in the SETUP menu to operate PROGRAM TIMER.

Special Features Timer (cont.)



Turn Off After 90 Minutes

The TV automatically turns OFF after 90 minutes when turned on by the PROGRAM TIMER. If the OFF time is programmed or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.

PROGRAM TIMER Activation

The PROGRAM TIMER is active when the TV is OFF or ON. The TV will switch to the selected channel at the selected time set by the PROGRAM TIMER.

CH CAP (Channel Caption)

Program channel captions (station labels) for 30 stations using up to four characters. Use the numeric keypad for entering numbers unavailable with the select arrows.

Delete channel captions by entering dashes (-) in all four character slots. Note:

SPECIAL FEATURES

d Unlock

prevent video games and videotapes from being viewed.

I 4, and video inputs for 12, 24, or 48 hours by entering a four-digit g GAME GUARD ON.

to unlock GAME GUARD before using it. Use a code that is easy to ord it in a safe place.

reentering your four-digit secret code, then selecting GAME GUARD

LOCK	
GAME GUARD	OFF
MOTION PICT. STATUS	OFF
CHANGE SETTINGS	•
TV PARENTAL STATUS	OFF
CHANGE SETTINGS	•
HOW LONG?	12 HRS
CHILD LOCK	OFF
ENTER CODE FIRST	

D is ON, and if a blocked channel or video input is selected, the GUARD ON displays in the upper right corner of the TV screen.



you do not remember your code, the LOCK will lock in 12, 24, or 48 hours depending on the rrent setup. Be cautious when selecting WAYS. If ALWAYS is selected, and you forget ur secret code, the TV must be serviced by a alified technician in order to clear the CK setup. V-CHIP OPERATION V-CHIP Operation

V-Chip Operation (cont.)

Motion Picture Ratings Chart

NR	CONTAINS NO RATING. (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. MOVIE HAS NOT BEEN RATED OR RATINGS DO NOT APPLY.
G	GENERAL AUDIENCES. All ages admitted.
PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children
10-15	under 13.
R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED.
Х	ADULTS ONLY

TV Parental Guide

This TV model features the "V-Chip technology" which allows you to use TV Parental Guide ratings when viewing TV programs. This innovation allows parents to block various types of TV Programming at their discretion.



Fig. 4

VIEW NR PROGRAMS?YES				
TV-PG	V	S	L	D



Procedure

- 1. In the Main Menu press the CH ▲▼ or VOL ◀► buttons to highlight LOCK icon.
- 2. Press ACTION button to display LOCK menu.
- 3. Use the numeric keypad to enter your four digit code. (Use a code that is easy to remember and record it in a safe place.)
- 4. Press **CH** ▲▼ buttons to highlight TV PARENTAL STATUS.
- 5. Press **VOL ♦** buttons to select OFF or ON.
- 6. Press **CH** ▼ button to highlight CHANGE SETTINGS. (See Fig. 4)
- 7. Press the VOL ◀► buttons to display TV PARENTAL GUIDE sub menu. (See Fig. 5).
- 8. Press the VOL ◀► buttons to select VIEW NR PROGRAMS? YES or NO. (Selecting, "Yes" NR programs will be received. Selecting "NO", NR programs will be blocked. See Customer Caution below.)
- 9. Press CH ▲▼ buttons to move between different ratings. Use VOL ◀▶ buttons to select the ratings you want to block.
- Note: See the TV PARENTAL GUIDE RATINGS chart.
 - 10. Press VOL ◀► buttons to block (RED) and unblock (GREEN).
 - 11. Press ACTION button repeatedly to exit menus.

V-CHIP OPERATION TV Parental Guide (cont.)



The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

- Emergency Bulletins (Such as EAS messages, weather ٠ warnings and others)
- Locally originated programming
- News
- Political
- **Public Service Announcements**
- Religious
- Sports
- Weather

TV PARENTAL GUIDE RATINGS CHART

NR	Not Rated. SEE CUSTOMER CAUTION on previous page.
TV-Y	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G	General audience . It contains little or no violence, not strong language, and little or no sexual dialogue or situations.
TV-PG	Parental guidance suggested . The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	Parents strongly cautioned . This program may contain sophisticated themes, sexual content, strong language and more intense violence.
TV-MA	Mature audiences only. This program may contain mature themes, profane language, graphic violence, and explicit sexual content.
FV	FANTASY/CARTOON VIOLENCE
V	VIOLENCE
s	SEX
L	OFFENSIVE LANGUAGE
D	DIALOGUE WITH SEXUAL CONTENT

Blocking Message

If V-Chip is enabled and the program exceeds the rating limit set by the user, the blocking message will appear and the audio will be muted. (See Fig. 6). Enter your code if you wish to continue viewing the program. After entering the code, all locks and ratings are disabled until the TV is turned off or until all settings are off.









Child Lock

This feature allows parents to lock the DVD disc tray to prevent children from playing DVDs or CDs. To unlock disc tray select OFF.



Procedure

- 1. In the Main Menu press the CH ▲▼ or VOL ◀► buttons to highlight LOCK icon.
- 2. Press ACTION button to display LOCK menu.
- 3. Use the numeric keypad to enter your four digit code (*Use a code that is easy to remember and record it in a safe place*).
- 4. Press the **CH** \blacktriangle **V** buttons to highlight CHILD LOCK.
- 5. Press VOL ◀► buttons to select DVD or OFF.
- 6. Press ACTION button repeatedly to exit menus.
- Note: When CHILD LOCK is set to DVD, all keys for the DVD player on the control panel are locked.

DVD Quick Reference Functional Chart

Remote Key	Description
	Displays the complete menu of the particular DVD with top most item highlighted.
	Press MENU during play. The DVD menu available on the disc is now displayed. Press MENU again to resume play.
	Press ANGLE during play. Number of angle being played back is displayed. Press ▲▼until the preferred angle is selected. Press ANGLE or ENTER to clear the display.
	Press SUBTITLE during play. When no subtitles are available, "" will be displayed instead of the language number. Press ▲▼until the pre- ferred language is selected. Press SUBTITLE or ENTER to clear the display.
	Press AUDIO during play. When no audio sound track is available, "-" will be displayed instead of the language number. Press ▲ ▼until the preferred language is selected. Press AUDIO or ENTER to clear the display.
PLAY MODE	Press PLAY MODE in the stop mode. The program playback screen appears on the TV screen. Press ▲▼ to select the preferred track number. Press ENTER to store in memory. Repeat to program up to 18 tracks. Press PLAY to begin the programmed sequence. To return to normal play, press STOP, PLAY MODE twice, and PLAY.
	Press MARKER during play. The marker screen appears on the TV screen. "*" indicates no marker has been stored yet. Press ENTER during play at the starting point to be viewed (listened to) again. Up to 5 markers can be stored in the memory. Press MARKER to clear the display.
	Press REPEAT MODE during play. Each time this button is pressed, the TV screen changes and the disc will repeat a chapter or title (DVD). To return to normal play, press REPEAT MODE several times until "OFF" is displayed.

DVD Quick Reference Functional Chart (Cont.)

Remote Key	Description
A-B REPEAT	Press A-B REPEAT during play at the point where repeat play is to start (A). Press A-B REPEAT at the point where repeat play is to be concluded (B). To return to normal play press A-B REPEAT several times until "OFF" is displayed.
vss	This set can reproduce a virtual surround sound effect. Press VSS during play.
NUM	Press NUM key in DVD mode to access the number keys.
RETURN≧10	When the MENU continues onto another screen, press RETURN to return to the previous menu screen. This key also lets you enter a number equal to or greater than 10 while in the DVD mode.
CANCEL TV/VCR	Press CANCEL in DVD mode to cancel selections.
STOP	Press STOP in DVD mode to stop play.
STILL PAUSE	Press STILL during play, the DVD player will be in the still picture mode. Press PAUSE during play, the CD player is placed in the pause mode. Press PLAY to resume the normal operation.
PLAY	Press PLAY in DVD mode to start play.
VOL 🖸 🚺 VOL	 Adjusting volume in DVD mode: Press TV mode button. Press VOL left/right to adjust volume. Press DVD mode button.
SKIP/REW	Press SKIP/REW in DVD mode to skip search or fast rewind (search or fast rewind with compact disc).
SKIP/FF	Press SKIP/FF in DVD mode to skip search or fast forward (search or fast forward with compact disc).
SLOW SEARCH	Press SLOW/SEARCH in the STILL mode to view slow motion play in reverse or forward direction. Press PLAY to resume normal operation.

OPERATION

ng Play. This will bring up the DVD menu with the top menu ER button twice to exit TOP MENU.

I menus. These menus may include guides to unique contents, es, special features, etc. Contents and operation may vary Following steps show the basic procedure.

g play. The menu of the particular disc is displayed.

DVD MENU		
1. SUBTITLE		
2. AUDIO		
3. SPECIAL FEATURES		

s ($\blacktriangleleft \triangleright \blacktriangle \lor$) to select the desired for the select the desired for the select the selec

are has sub-menu, repeat step 2 select the desired feature

desired feature is activated ress **MENU** again resumes play n MENU was first press

angle (DVD)

n scenes which have been shot simultaneously from a es. For these iscs, the same scene can be viewed from each es using ANGLE button. (The recorded angles differ sed.)

lay black.

ie c red essir



ns $\blacktriangle \blacksquare$ until the preferred angle is

tons also changes the angle. TER to clear the display.



works for titles having scenes recorded at

in be programmed beforehand with some DVDs; the angle e selected number when ANGLE lights up.

on the TV screen while a button is being pressed, it means that the ration is unavailable on the disc.

SUBTITLE

Changing subtitle language (DVD)

It is sometimes possible to change subtitles to a different language. This operation works only with discs on which multiple subtitle languages are available.

Press **SUBTITLE** during play.

When no subtitles are available, "--" will be displayed instead of the language number.



Press the cursor buttons $(\blacktriangle \nabla)$ until the preferred language is selected. Pressing the numeric buttons also selects the subtitle language. Press **ENTER** to clear the display.

To display subtitles or clear screen:

Press the cursor buttons **I** to select ON or OFF. Note:

- In some cases, the subtitle language will not change to the selected one immediately.
- When a disc supporting closed captioning is played, subtitles and closed captioning may overlap on the TV screen. In this case, turn the subtitle off.

For your reference:

- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, subtitles appear in the language selected at the initial settings. If this language is not recorded on the disc, subtitles appear in the disc's priority language.

Changing audio sound track language (DVD)

It is sometimes possible to change the audio sound track to a different language. This operation works only with discs on which multiple audio sound track languages are available.

Press AUDIO during play.

When no audio sound track is available, "-" will be displayed instead of the language number.



Press the cursor buttons $(\blacktriangle \nabla)$ until the preferred language is selected.

Pressing the numeric buttons also changes the audio sound track language. Press **ENTER** to clear the display.

For your reference:

- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, the language heard is the one selected at the initial settings. If multiple languages are not available on the disc, only the language recorded on the disc will be heard.

PLAY MODE

PLAY MODE (VIDEO CD/CD) feature lets you play the tracks in an order you specify.

Press **PLAY MODE** in the stop mode.

The program playback menu appears on the TV screen.

Press **ENTER**, then cursor buttons ($\blacktriangle \nabla$) to select the preferred track number or press **NUM** key and the numeric buttons on the remote control to enter the preferred track number.

	Choose a	track, then pre	SS	ENTER	
	Track	Time			
1	5	4:16		Clear	
2	6	2:50			
3	4	3:24		<u></u>	
4	3	3:42		Clear all	
5	6	2:50			
6					
7				Iotal time	
8				17:02	l
	P	ress PLAY to s	sta	rt	

Press ENTER. The selected track is stored in memory.

Play Mode (cont.)

Repeat steps to select another track.

Press PLAY.

Play now begins in the programmed sequence.

After playback

Play is stopped and the program playback menu is displayed.

To return to normal play

- Press STOP. (Program play is suspended.)
- Press PLAY MODE twice.
- Press PLAY.

Normal play begins from the beginning of the disc. (The content of the program is still retained in the memory.)

Clearing the program

When the program playback menu is displayed.

• To clear the last program one by one:

Move to "Clear" and press ENTER.

• To clear all the programs:

Move to "Clear All" and press ENTER. (The programs are also cleared when the player is turned off, or OPEN/CLOSE is pressed.)

Random Play (Video CD/CD)

The player plays the tracks on the disc in random order.

 Press PLAY MODE twice in STOP mode. The random playback screen appears on the screen.



• Press PLAY.

To exit the random playback mode and return to normal operation:

- Press STOP. (Random play is suspended.)
- Press PLAY MODE once.
- Press PLAY. (Normal play begins from the beginning of the disc.)

To Store markers in memory to be viewed (listened to) again.

Press MARKER during play.

The MARKER menu appears on the TV screen.



"*" indicates no marker has been stored yet.

Press ENTER during play at the starting point to be viewed (listened to) again.



Indicates MARKER 1 is stored in the memory

(If **ENTER** is pressed where any number is already displayed, the previous starting point will be replaced by the new one.)

Up to 5 markers can be stored in the memory.

Press MARKER to clear the display.

Recalling/clearing a marker

Press MARKER during play.

Press the cursor buttons (\blacktriangleleft) to select the marker to be recalled/cleared. Press the cursor button (\blacktriangle) to recall a marker.

or

Press CANCEL to clear a marker.

Play resumes from the point corresponding to the selected marker.

or

The selected marker is cleared. (Press **MARKER** to clear the display.) Note:

- Some subtitles recorded around the marker may fail to appear. (DVD)
- These operations do not work with an interactive DVD or during menu play of a Video CD with playback control.

For your reference:

All the markers are cleared when the player turned off, or OPEN/CLOSE is pressed.

REPEAT MODE

Repeat play/viewing (listening)

Press **REPEAT MODE** during play.

Each time this button is pressed, the TV screen changes as shown below and the disc will repeat a chapter or title (DVD) or a track or the entire disc (Video CD/CD).

DVD

CD/VIDEO CD



To return to normal play

Press REPEAT MODE several times until "OFF" is displayed. Notes:

- Repeat play may not work correctly with some DVDs.
- Repeat play does not work with an interactive DVD or during menu play of a Video CD with playback control.

To enjoy program repeat play while playing CDs.

If REPEAT MODE is pressed during program play the display changes as follows:



A-B REPEAT

A-B Repeat allows you to repeat sections between two specific points (A-B repeat)

Press A-B REPEAT during play at the point where repeat play is to start (A).



Press A-B REPEAT at the point where repeat play is to be concluded (B).

Repeat play of the selection between points A and B.

To return to normal play

Press A-B REPEAT several times until the following display is shown.



Notes:

- A-B repeat play does not work with an interactive DVD.
- Some subtitles recorded around point A or B may fail to appear. (DVD)
- A-B repeat play works only within a title (DVD) or a track (Video CD/CD).

For your reference:

• If the title/track is completed before end location B is specified, the end point of the title/track serves as end location B.





Volume Adjustment in DVD Mode

Follow these steps to adjust volume in the DVD mode.

- 1. Press the TV MODE on the remote control.
- 2. Press the VOL **I** buttons on the remote control to adjust the volume.
- 3. Press the DVD MODE button on the remote control to return to DVD operation.

Note: Volume can also be adjusted by pressing the VOL **♦** buttons on the front control panel.

General information about On-Screen Menu Icons

The DVD player in this unit features On-Screen Menu Icons providing various functions. A banner will be displayed on the television screen by pressing the **DISPLAY** on the remote control. Operating the cursor buttons and **ENTER** button on the remote control will show the following disc information:

- Title/chapter/track numbered playing time, audio/subtitle language, and angle.
- Player information such as repeat play, play mode, marker, Virtual Surround Sound, etc.

Common procedures

Press **DISPLAY** button during Play or in the STOP mode. Each time this button is pressed, the following display sequence appears on-screen:



- 1. Press the cursor buttons ◀► to select the preferred item. The selected item is indicated by the yellow frame on the On-Screen Menu Icons.
- 2. Press the cursor buttons ▲▼ to select the preferred setting. For some items, the selection will be registered immediately; for others, ENTER or PLAY must be pressed. When numbers are displayed in the on-screen menus, the numeric buttons are also effective for selecting instead of the cursor buttons (▲▼).
- 3. Press RETURN or CANCEL to clear the three different styles for On-Screen Menu lcons.

DVD Setup Menus

Using the DVD SETUP menus, you can pre-program the following choices:

- 1. Disc Languages
- 2. Ratings Level
- 3. Menu Languages
- 4. On-Screen Messages
- 5. TV Aspect
- 6. Digital Audio Output
- 7. Other Settings

Procedure

- Press the TV button on the remote control.
- Press ACTION/ENTER button to display the Main Menu.
- Press ▲▼ or ◀► button to highlight the DVD SETUP Icon.
- Press ACTION/ENTER button to display the DVD SETUP menu.
- Press **DVD** button on the remote control and stop the disc (if playing).
- Press the cursor buttons ▲▼ to select the preferred item and press ENTER to display the sub-menus of the preferred item.

	1 Disc Languages	
0	2 Ratings	Level 8 🕤
	3 Menu Language	English
	4 On-Screen Messages	6
- 	5 TV Aspect	4:3
- <u>688</u> -(6 Digital Audio Output	
	Q Other Settings	
	Proce RETURN to	ovit
	11633112101111) OXIL

• Press **RETURN** repeatedly to exit menus.

Disc Languages

This menu selects the audio sound track language, sub-title language and the language used in the menus of DVD menus. The same settings will be used for every disc to be played back.

Procedure

- In DVD SETUP menu, press ▲▼ buttons to highlight DISC LANGUAGES.
- Press **ACTION/ENTER** button to display the sub-menu.
- Press \blacktriangle or \triangledown button to select the Audio, Subtitle or Menus.

81	Di	isc Langua	ges	1
	1	Audio	Original	L
	2	Subtitle	French	L
<u></u>	3	Menus	English	
	Press RETURN to exit			

- Press ACTION/ENTER button to enter your selection.
- To select a non-listed language, select OTHER ****, then refer to the language codes in back of this manual.
- Press the NUM button, then use the 0~9 button to enter code.
- Press CANCEL if an incorrect language code is entered.
- Press RETURN to exit the Disc Languages sub-menu.

Ratings Level

The Ratings Level menu lets parents set a specified rating level. If the rating level of the disc is higher than the preset level, playback of the disc is prohibited. **Procedure**

- In DVD SETUP menu, press ▲ or ▼ button to highlight Ratings.
- Press ACTION/ENTER button to display Ratings menu.
- Press \blacktriangle or \triangledown button to select the preferred rating level.
- Press ACTION/ENTER button to enter your selection.



Following is the explanation of Rating Levels:

Level 8	All DVDs can be played back. (Factory preset)
Level 7 to 2	DVDs for general audiences/children can be played back. (DVDs for adults are prohibited.)
Level 1	DVDs for children can be played back. (DVDs for adults/general audi- ences are prohibited.)
Level 0 (Lock All)	Playback of DVDs are prohibited (e.g. playback of DVDs for adults which are not encoded with rating level information).

- When a level 7 or lower is selected, an on-screen display appears and prompts you enter a four digit code. Press **NUM** key and the 0 - 9 number keys on the remote control to enter the four digit code. Make sure to remember this code. You'll need to input this code to change the rating level if you decide later.
- Press ENTER to activate your rating level selection.

The rating is locked. Any disc whose rating is higher than the setting cannot be played back unless the correct password (4-digit code) is entered.

When the player is locked and you wish to play a DVD whose rating is different than the rating level you selected, enter the four digit secret code, press **ENTER**, and the following menu appears on the screen.

Ratings 1 Unlock Player 2 Change Password 3 Change Level 4 Temporary Unlock
Press RETURN to exit

Rating Level (cont.)

To unlock the player follow the procedure below. Procedure

- Highlight Unlock Player, then press ENTER.
- Highlight Change Password and press **ENTER**. Enter a new password and press **ENTER** twice.



- **Note:** Press NUM key and 0 9 number keys on the remote control to enter the four digit password.
- Highlight Change Level and press ENTER.
- Select a new rating by using \blacktriangle or \triangledown button, then press **ENTER**.

To unlock the player temporarily

Highlight Temporary Unlock and press ENTER. The player is unlocked temporarily only for the disc.

Selecting language of On-Screen display menus

This menu lets you to select the language to be used to display the on-screen menus. **Procedure**

- In the DVD SETUP menu, press ▲ or ▼ button to highlight Menu Languages.
- Press **ACTION/ENTER** button to display the sub-menu.



- Press ▲ or ▼ button to select English, Français or Español.
- Press ACTION/ENTER button. Initial setting menu is displayed.

On-Screen Messages

This menu lets you decide whether "Play", "Still" and other on-screen displays will be displayed or not. It also lets you select the color and positioning of displays. **Procedure**

- In the DVD SETUP menu, press ▲ or ▼ button to highlight On-Screen Messages.
- Press **ACTION/ENTER** button. The following sub-menu is displayed.

00	On-Screen Messages
	1 On-Screen Messages On 2 Color and Position Paral Blue
	Press RETURN to exit

- Press \blacktriangle or \triangledown button to select the preferred item and press **ENTER**.
- If On-screen Message is highlighted, select On or Off.
- If Color and Position is selected, make your selection from the screen displayed on-screen.

	On-Screen Messages
	Color and Position
	1 ▷ Blue
	2 [▶] Violet
000	3 ▷ 🗖 Green
000	4 P⊟ Blue
	5 ₽
	6 ▷ Green
	Press RETURN to exit

- Press ACTION/ENTER button to enter your selection.
- Press RETURN to exit the menu.

TV Aspect

This menu lets you select the aspect ratio of your television. Select 4:3 (conventional TV) or 16:9 (wide screen).



Procedure

- In the DVD SETUP menu, press \blacktriangle or \triangledown button to highlight TV Aspect.
- Press ACTION/ENTER button to display the sub-menu.
- Press \blacktriangle or \triangledown button to select either 4:3 or 16:9.
- Press ACTION/ENTER button to enter your selection.
- When AUTO ASPECT is ON and the TV Aspect is set to 16:9, a DVD disc in Note: widescreen mode (squeeze or anamorphic widescreen) will be played back in vertical compressed 16:9 mode.

Digital Audio Output

This menu lets you select the digital output to be outputted from the optical digital audio output connector of the TV set.

Procedure

- In the DVD SETUP menu, press \blacktriangle or \checkmark button to highlight Digital Audio Output.
- Press ACTION/ENTER button to display the sub-menu.



- ٠ Highlight PCM Down Conversion (Item 1). Press ENTER to display the sub-menu. Select either No or Yes.
- Press ACTION/ENTER button. ٠
- Highlight Dolby Digital. Press ACTION/ENTER button to display Dolby Digital sub-menu.

 Select either Bitstream or PCM. If Bitstream is selected, Dolby Digital bitstream (6 Ch) is output during playback of DVDs recorded in the Dolby Digital. (Factory preset)

Use this setting when the audio output is connected to the Dolby Digital Decoder.

VD SETUP MENUS

igital Audio Output (cont.)

If PCM is selected the digital audio is converted to PCM (2ch) of 48kHz/16 bit and is output during playback of DVDs recorded in the Dolby Digital.

- Press ACTION/ENTER button.
- Highlight DTS Digital Surround.
- Press ACTION/ENTER button to display sub-menu.
- Select either Off or Bitstream.

Off - No digital audio is output from the Dolby Digital output jack during playback of th DVDs recorded in DTS. (factory preset)

Bitstream - DTS bitstream is output from the Dolby Digital audio output jack dur playback of the DVDs recorded in DTS. Select this setting when the player is nected to a DTS decoder.

• Press ACTION/ENTER.

ther Settings

This menu lets you perform other special features of the DV **Procedure**

- In the DVD SETUP menu, press ▲ or ▼ button f
- Press ACTION/ENTER button to display the sub



Still Mode

Lets you select An Frame still are a vents jittering picture mo

Audi Tb'

Other Settings (Cont.)

TV Mode

Select either Pan & Scan or Letterbox.

Pan & Scan: The video material for a wide-screen will be played back in the Pan & Scan style on a conventional television.

Note: Video material not formatted in the Pan & Scan style will be played back in the letterbox style.

Letterbox: The video material for a wide-screen will be played back in the letterbox style with black bars top and bottom on the screen.



D. Range Compression

Select D.(Dynamic) Range Compression Off or On.

Off mode is selected to hear the normal audio range.

On mode is selected to listen to dynamic sound even on low volume. Dynamic range is the difference in volume between the quietest and loudest sounds heard. Dynamic compression limits the level for listening at low volume. This is useful late at night, for example.

Note: This function only works with Dolby Digital DVD.

Still Picture Display

This menu is used to select the type of still picture displayed on the screen. Select either Off or On.

If **Off** mode, the picture type (I/P/B) will not be displayed on the TV screen in the still picture mode. (Factory preset)

If **On** mode is selected, the picture type (I/P/B) will be displayed on the TV screen in the still picture mode.

For your reference:

When On is selected in the Still Picture Display, the following screen is displayed in the still picture mode.



Explanation of I/P/B

The MPEG 2 standard adopted for DVD uses the following 3 picture types for the coding of each picture (frame) on the TV screen.

• I-Picture (Intra coded picture)

This is the standard picture type, and each picture is coded separately. Since it features the best picture quality, it is recommended that the screen be frozen with I-Picture when the picture quality is to adjusted.

• P-Picture (Predictive coded picture)

This picture type is computed on the basis of a past I-Picture or P-Picture.

• B-Picture (Bidirectionally-predictive coded picture)

This picture type is computed by comparing the previous and subsequent I-Picture or P-Picture. It has the lowest volume of information.

Black Level Control

This menu lets you select the black level of the picture, "Lighter" or "Darker".

Procedure

- In Other Settings menu, press ▲ or ▼ button to select Black Level Control.
- Press ACTION/ENTER button to display the sub-menu.
- Press ▲ or ▼ button to select either Lighter" or "Darker".
- Press ENTER.
- Press **RETURN** repeatedly to exit the DVD SETUP menu.

Troubleshooting Chart - DVD

Before calling for service, determine the symptoms and follow suggested solutions.

Symptoms	Solutions
Play fails to start even after PLAY is pressed.	This player cannot play a disc other than DVD, VIDEO CD and CD.
Play starts but then stops	The disc may be dirty and may require cleaning.
immediately.	Make sure that the disc is installed with the label side facing up.
	Press the TV Mode button, then press VOL buttons.
control while in DVD mode	Press the DVD mode button to return to DVD operation.
No sound	Make sure that the TV speakers are turned On.
	If connected to stereo systems, check all the connections and check the amplifier's input selection.
Play does not start even when title is selected.	Check the Ratings level setting. The disc has a different rating than the one selected in the DVD SETUP menu.
Picture distorted during rapid advance or rapid reverse.	The picture will be somewhat distorted at times: this is normal.
No key operation (by the controls on the TV set or remote control unit) is effective.	Some operations may be prohibited by the disc.
No 4:3 (16:9) picture.	Choose the correct TV aspect from the DVD SETUP menu.
No on-screen display.	The "Off" setting is selected for On-screen Messages. Select "On" to view the On-screen Messages.
	Subtitles appear only with discs containing them.
No subtitles	Subtitle option turned Off. Select "On" from subtitle sub-Menu.
Angle cannot be changed.	This function dependent on software availability. Even if a disc has a number angles recorded, these angles are for specific scenes only.
Audio sound track and/or subtitle language is not the one selected at the initial settings.	If the audio sound track and/or subtitle language does not exist on the disc, the language selected at the initial settings will not be seen or heard.

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